Zeitschrift fur Geomorphologie, Supplementband 1999 vol.113, pages 59-67

Pleistocene glaciation in the east of the Russian Plain: Ural or Scandinavian glacier? | Die pleistozane Vergletscherung im Osten der Russischen Ebene: Zentrum im Ural oder Skandinavien?

Dedkov A., Butakov G.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

A widespread occurrence of boulders and pebbles of Ural origin, forming watershed deposits and denudation hills ('puges') was discovered in the east of the Russian Plain at the end of the last century. These deposits were sometimes considered to be relicts of tills of the Pleistocene Ural ice sheets. The discussion about correlation of the Ural and Scandinavian glaciations lasted about 100 years. In the course of longterm investigations it has been established that the desintegrated rocks scattered on the surface are derived of Permian and Mesozoic conglomerates (petrographic and granulometric composition, roundness and other features). Two complexes can be identified in this material, i.e. the Upper Permian - Lower Triassic and Middle Jurassic. The difference in their composition displays the difference in climatic conditions during the denudation of the Ural: arid in the Permian and Early Triassic and humid in the Jurassic period. The north and west of the territory were covered only by the Scandinavian glacier. It is demonstrated by boulders from the Kola peninsula and Karelia. The traces of Pleistocene glaciation can be observed in the Urals mountains only at about 59°30 N latitude.